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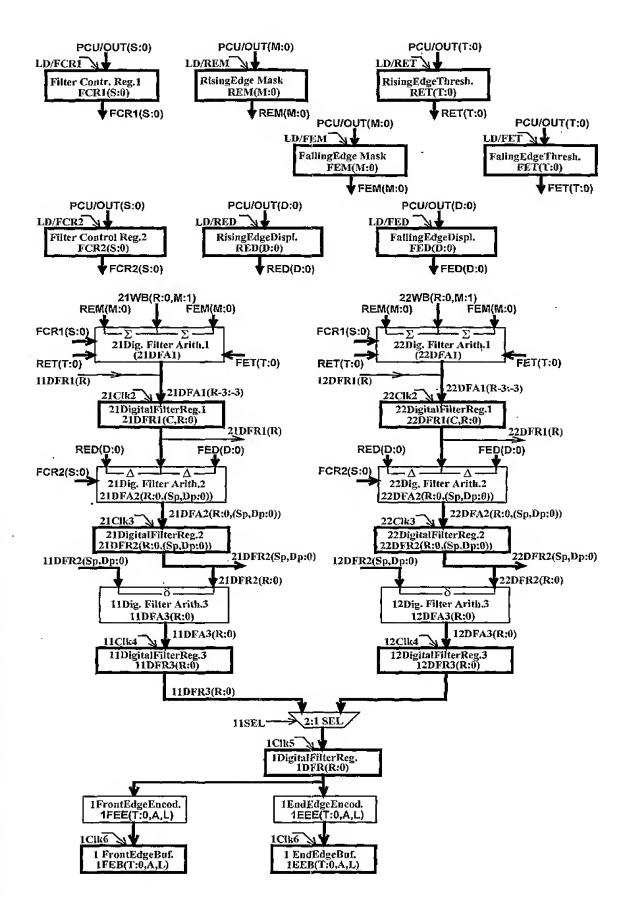
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#### **Declaration under Rule 4.17:**

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[Continued on next page]

(54) Title: NOISE FILTERING EDGE DETECTORS



(57) Abstract: The present invention relates to a noise filtering edge detector (NFED) for removing phase noise from wave-form edges and/or removing amplitude glitches from wave-form pulses by continues digital filtering of the entire incoming wave-form sampled in time instances matching single gate delays provided by outputs of a delay line built with serially connected gates which a sampling clock is propagated through. The NFED comprises a wave capturing circuit for capturing results of sampling the incoming wave form in time instances produced by the outputs of the delay line which the sampling clock is propagated through; a means for performing logical or arithmetic operations on particular samples of the edge mask and their counterparts from the wave-form samples surrounding the consecutive analyzed sample of the captured wave-form; and a means for using the results of said operations for deciding if said operations can determine a filtered location of an edge of a filtered wave-form.

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